

REMARKS

Favorable reconsideration of this application is requested in view of the following remarks. The Office Action withdraws claims 1-25, 29, 31 and 34-44 from further consideration. Claims 1-29 and 31-44 are pending in this application. By this Amendment, claims 26 and 28 are amended.

In numbered paragraph 4, pages 2-4 of the Office Action, independent claim 26, along with dependent claim 27, was rejected as being anticipated by, or alternatively, being obvious over U.S. Patent No. 5,246,325 to Morishige et al. In numbered paragraph 5, page 4 of the Office Action, dependent claim 28 was rejected as being unpatentable over the Morishige et al. patent, in view of U.S. Application Publication No. 2001/0019691 to Boss. In numbered paragraph 6, page 5 of the Office Action, dependent claims 32 and 33 were rejected as being unpatentable over the Morishige et al. patent in view of U.S. 2002/0064437 to Kuramoto et al. In numbered paragraph 7, pages 6-8 of the Office Action, dependent claims 26-28 were rejected as being unpatentable over U.S. Patent No. 6,024,525 to Yamanaka, in view of the Boss publication and U.S. Patent 5,871,323 to Clark. In numbered paragraph 8, pages 8-9 of the Office Action, dependent claims 32 and 33 were rejected as being unpatentable over the Yamanaka patent, the Boss publication and the Clark patent, further in view of the Kuramoto et al. publication. These rejections are respectfully traversed.

Applicant has discussed of record exemplary methods of binding an assembly of plural sheets to form a book-like structure. For example, Applicant has discussed Figs. 3A-3D in which a leading edge 328, 330 is adapted to contact a protruding end

portion 308 of a backed hot melt adhesive sheet 302, and to redirect the protruding end portion 308 toward the plane surface 310 (e.g., paragraph [0036]).

Applicant has further disclosed absorbing heat from a hot melt adhesive into at least a portion of the clamping jaw 320. For example, Applicant has disclosed that absorbing heat includes actively removing heat from the hot melt adhesive with a heat sink 334, such as a Peltier device, a device with internal circulation of a cooling medium, or a Joule-Thomson device (e.g., paragraph [0038]). Absorbing heat solidifies or cures the hot melt adhesive of the backed hot melt adhesive sheet 302 (e.g., paragraph [0038]).

The foregoing features are broadly encompassed by claim 26. Claim 26 recites, among other features, actively withdrawing heat from the backed hot melt adhesive sheet using a heat sink based on an active cooling device, which is one of a Peltier device, a device having an internal circulating medium, and a device based on a Joule-Thomson effect, to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive, wherein at least the translatable first contacting surface has an angled leading edge adapted to contact a protruding end portion of the backed hot melt adhesive sheet at an offset angle.

The Morishige et al. Patent, and the Boss and Kuramoto et al. Publications

On page 4 of the Office Action, the Examiner admits that "Morishige does not specifically teach the cooling is performed by an active heat sink attached to and in thermal communication with at least one of the first and second contacting surfaces, i.e. clamping jaws." At least for these reasons, the Morishige et al. patent would not

have taught or suggested actively withdrawing heat from the backed hot melt adhesive sheet using a heat sink based on an active cooling device, which is one of a Peltier device, a device having an internal circulating medium, and a device based on a Joule-Thomson effect, to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive, wherein at least the translatable first contacting surface has an angled leading edge adapted to contact a protruding end portion of the backed hot melt adhesive sheet at an offset angle, as recited in claim 26.

The Boss publication does not cure the deficiencies of the Morishige et al. patent. While the Examiner relies on Fig. 2 and paragraph 17 of the Boss publication to assert on page 4 that "Boss teaches including the actively cooled heat sink within the clamping jaw...", Applicant respectfully disagrees with the Examiner's ultimate conclusion.

The Examiner applied the Boss publication for its disclosure of a heat sink 30, which is unrelated to Applicants' claimed active heat sink. Rather, the "heat sink" as relied upon by the Examiner is based on a large "thermal mass" of a solid block 30 as illustrated in Fig. 2. The Boss publication, considered individually or in the combination as suggested by the Examiner, would not have taught or suggested actively withdrawing heat from the backed hot melt adhesive sheet using a heat sink based on an active cooling device, which is one of a Peltier device, a device having an internal circulating medium, and a device based on a Joule-Thomson effect, to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the

glass transition temperature of the hot melt adhesive, wherein at least the translatable first contacting surface has an angled leading edge adapted to contact a protruding end portion of the backed hot melt adhesive sheet at an offset angle, as recited in claim 26.

The Kuramoto et al. publication does not cure the deficiencies of the Morishige et al. patent and the Boss publication. Rather, the Kuramoto et al. publication was applied by the Examiner for its disclosure of a one sheet binding embodiment as shown in Fig. 3 and an adhesive dispensing system 72 as shown in Figs. 4A-4D. However, the Kuramoto et al. publication, considered individually or in the combination as suggested by the Examiner, would not have taught or suggested actively withdrawing heat from the backed hot melt adhesive sheet using a heat sink based on an active cooling device, which is one of a Peltier device, a device having an internal circulating medium, and a device based on a Joule-Thomson effect, to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive, wherein at least the translatable first contacting surface has an angled leading edge adapted to contact a protruding end portion of the backed hot melt adhesive sheet at an offset angle, as recited in claim 26.

The Yamanaka and Clark Patents, and the Boss and Kuramoto et al. Publications.

On page 6 of the Office Action, the Examiner admits that "Yamanaka is silent as to including within the clamping jaw (e.g., between the first contacting surface 702 of Figure 1 and press 730 of Figure 1) an active cooling member." At least for these

reasons, the Yamanaka patent would not have taught or suggested actively withdrawing heat from the backed hot melt adhesive sheet using a heat sink based on an active cooling device, which is one of a Peltier device, a device having an internal circulating medium, and a device based on a Joule-Thomson effect, to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive, wherein at least the translatable first contacting surface has an angled leading edge adapted to contact a protruding end portion of the backed hot melt adhesive sheet at an offset angle, as recited in claim 26.

The Boss publication does not cure the deficiencies of the Yamanaka patent. For the like reasons as set forth above, while the Examiner relies mainly on a thermal mass of heat sink 30 configured in relation to a heated paten 28 as shown in Fig. 2, Applicant respectfully disagrees with the Examiner's ultimate conclusion that "Boss teaches including the actively cooled heat sink within the clamping jaw..." The Boss publication, considered individually or in the combination as suggested by the Examiner, would not have taught or suggested actively withdrawing heat from the backed hot melt adhesive sheet using a heat sink based on an active cooling device, which is one of a Peltier device, a device having an internal circulating medium, and a device based on a Joule-Thomson effect, to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive, wherein at least the translatable first contacting surface has an

angled leading edge adapted to contact a protruding end portion of the backed hot melt adhesive sheet at an offset angle, as recited in claim 26.

The Clark patent does not cure the deficiencies of the Yamanaka patent and the Boss publication. Rather, the Clark patent was applied by the Examiner for its disclosure that the nose of each side nip press 28a, 28b that presses into the spine region 10a is chamfered on its upper edge in order to assist in producing a conventional cover page (col. 6, lines 17-35). However, the Clark patent, considered individually or in the combination as suggested by the Examiner, would not have taught or suggested actively withdrawing heat from the backed hot melt adhesive sheet using a heat sink based on an active cooling device, which is one of a Peltier device, a device having an internal circulating medium, and a device based on a Joule-Thomson effect, to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive, wherein at least the translatable first contacting surface has an angled leading edge adapted to contact a protruding end portion of the backed hot melt adhesive sheet at an offset angle, as recited in claim 26.

The Kuramoto et al. publication does not cure the deficiencies of the Yamanaka and Clark patents and the Boss publication. Rather, the Kuramoto et al. publication, as best gathered from page 8 of the Office Action, appears to have been applied by the Examiner for its disclosure of a one sheet binding embodiment as shown in Fig. 3 and an adhesive dispensing system 72 as shown in Figs. 4A-4D. However, the Kuramoto et al. publication, considered individually or in the combination as suggested by the Examiner, would not have taught or suggested

actively withdrawing heat from the backed hot melt adhesive sheet using a heat sink based on an active cooling device, which is one of a Peltier device, a device having an internal circulating medium, and a device based on a Joule-Thomson effect, to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive, wherein at least the translatable first contacting surface has an angled leading edge adapted to contact a protruding end portion of the backed hot melt adhesive sheet at an offset angle, as recited in claim 26.

Conclusion

For at least those reasons, Claim 26 is not obvious and is allowable. Dependent claims 27, 28, 32 and 33 are allowable at least by virtue of their dependence from Claim 26.

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the application is in condition for allowance and a Notice of Allowance is respectfully solicited.

Respectfully submitted,

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